ABSTRACT

Processing packet information using an array of processing elements involves performing search-independent processing on packet information in parallel with a search of a first

5   stage memory unit and then using the processed information and the result from the search of the first stage memory unit to generate search information for a search of a second stage memory unit. The search-independent processing of packet information in parallel with search operations can be repeated at each stage of the array. By performing search-independent processing of packet information in parallel with search operations

10   instead of serially, latency that is contributed from the relatively slow search operations is reduced.